

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
Wadih Arap et al.

Serial No.: 10/530,168

Filed: April 4, 2005

For: COMPOSITIONS AND METHODS OF
USE OF TARGETING PEPTIDES FOR
DIAGNOSIS AND THERAPY OF
HUMAN CANCER

Group Art Unit: 1642

Examiner: Unknown

Atty. Dkt. No.: UTSC:857US

Confirmation No.: 5612

CERTIFICATE OF ELECTRONIC TRANSMISSION
37 C.F.R. § 1.8

I hereby certify that this correspondence is being
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Trademark Office via EFS-Web on the date below:

July 9, 2007
Date

David L. Parker

REQUEST FOR CORRECTED FILING RECEIPT

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

A corrected filing receipt is requested in view of the errors that appear in the original. For the convenience of the Patent and Trademark Office, attached is a photocopy of the original receipt on which the errors have been noted.

There are errors in the Foreign Applications section. Please add the following to correct the priority data:

United States of America PCT/US01/27692 09/07/01

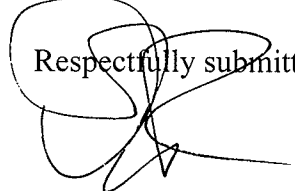
United States of America PCT/US01/28044 09/07/01

United States of America PCT/US01/27702 09/07/01.

In support of this requested correction, Applicants attach a copy of the first page of the Specification filed April 4, 2005.

No fee is believed to be due in connection with the filing of this document. However, should any fee under 37 C.F.R. §§ 1.16 to 1.21 be deemed necessary for any reason relating to this document, the Commissioner is authorized to deduct the appropriate fee from Fulbright & Jaworski Deposit Account No.: 50-1212/UTSC:857US.

Respectfully submitted,

A handwritten signature in black ink, appearing to be "David L. Parker", written over the text "Respectfully submitted,".

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Date: July 9, 2007



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APPL NO.	FILING OR 371 (c) DATE	ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLMS	IND CLMS
10/530,168	02/23/2006	1642	1965	UTSC:857US	37	57	6

CONFIRMATION NO. 5612

32425
FULBRIGHT & JAWORSKI L.L.P.
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FILING RECEIPT



OC000000019697208

Date Mailed: 07/20/2006

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please mail to the Commissioner for Patents P.O. Box 1450 Alexandria Va 22313-1450. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).**

Applicant(s)

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Power of Attorney: The patent practitioners associated with Customer Number **32425**.

Domestic Priority data as claimed by applicant

This application is a 371 of PCT/US02/34987 10/30/2002

Foreign Applications

UNITED STATES OF AMERICA PCT/US02/27836 08/30/2002

UNITED STATES OF AMERICA PCT/US01/27692 09/07/01

UNITED STATES OF AMERICA PCT/US01/28044 09/07/01

Projected Publication Date: 10/26/2006

UNITED STATES OF AMERICA
PCT/US01/27702
09/07/01

FULBRIGHT & JAWORSKI, LLP

PT DOCKETING

Docketed ☒ Not Req'd ☐ Confirmation ☐Initials 1st DM Initials 2nd [Signature]

Non-Publication Request: No

JUL 25 2006

Early Publication Request: No

Attorney DLP

** SMALL ENTITY **

Docket No. UTSC:857US

Action Req'd Date Due

Title

Foreign Filing N/A

Compositions and methods of use of targeting peptides for diagnosis and therapy of human cancer

Preliminary Class

514

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Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

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**COMPOSITIONS AND METHODS OF USE OF TARGETING PEPTIDES FOR
DIAGNOSIS AND THERAPY OF HUMAN CANCER**

BACKGROUND OF THE INVENTION

This application is a continuation in part of PCT patent application entitled, "Compositions and Methods of Use of Targeting Peptides Against Placenta and Adipose Tissues," by Pasqualini, Arap and Kolonin, filed August 30, 2002, which was a continuation in part of PCT/US01/27692, filed on September 7, 2001. This application is also a continuation in part of PCT/US01/28044, filed on September 7, 2001 and of PCT/US01/27702, filed on September 7, 2001. The entire texts of all the above-cited applications are incorporated herein by reference. This invention was made with U.S. government support under grants CA90270, 1R1CA90810-01 and 1R01CA82976-01 from the National Institutes of Health. The U.S. government has certain rights in this invention.

Field of the Invention

The present invention concerns the fields of cancer diagnostics and targeted delivery of therapeutic agents to cancer cells. More specifically, the present invention relates to compositions and methods for identification and use of peptides that selectively target cancer cell receptors, such as the IL-11 receptor and/or the GRP78 receptor. In particular embodiments, the targeted receptors are preferentially expressed in prostate cancer, especially in metastatic prostate cancer. In certain embodiments, the invention concerns compositions and methods of use of novel phage-based gene delivery vectors.

Description of Related Art

Therapeutic treatment of many disease states is limited by the systemic toxicity of the therapeutic agents used. Cancer therapeutic agents in particular exhibit a very low therapeutic index, with rapidly growing normal tissues such as skin and bone marrow affected at concentrations of agent that are not much higher than the concentrations used to kill tumor cells. Treatment of cancer and other organ, tissue or